401 KAR 61:056. Existing bulk gasoline plants.

NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
Department for Natural Resources
Division of Air Pollution

Relates to: KRS Chapter 224
Pursuant to: KRS 13.082, 224.033
Necessity and Function: KRS 224.033 requires the Natural Resources and Environmental Protection Cabinet to prescribe administrative regulations for the prevention, abatement, and control of air pollution. 42 USC 7410 likewise requires the state to implement standards for national primary and secondary ambient air quality. This administrative regulation provides for the control of volatile organic compounds emissions from existing bulk gasoline plants.

Section 1. Definitions.
As used in this regulation, all terms not defined in this section shall have the meaning given to them in 401 KAR 61:001.

(1) "Affected facility" means a bulk gasoline plant.

(2) "Bulk gasoline plant" means a facility for the storage and dispensing of gasoline that employs tank trucks, trailers, or other mobile non-marine vessels for both incoming and outgoing gasoline transfer operations.

(3) "Gasoline" means any petroleum distillate having a Reid vapor pressure of 4.0 pounds per square inch or greater used as a fuel for internal combustion engines.

(4) "Bottom-fill system" means a system of filling transport vehicle tanks through an opening that is flush with the bottom of the transport vehicle tank.

(5) "Vapor balance system" means a combination of pipes or hoses which create a closed system between the vapor spaces of an unloading tank and a receiving tank such that vapors displaced from the receiving tank are transferred to the tank being unloaded.

(6) "Submerged fill tube system" means a fill tube the discharge of which is entirely submerged when the liquid level is six (6) inches above the bottom of the transport vehicle tank.

(7) "Classification date" means June 29, 1979.

(8) "Transport vehicle" means tank trucks, trailers, railroad or tank cars.

Section 2. Applicability.

This administrative regulation shall apply to each affected facility commenced before the classification date defined in Section 1 of this administrative regulation which is located in a county or portion of a county which is designated ozone nonattainment, for any nonattainment classification except marginal, under 401 KAR 51:010.

Section 3. Standard for VOCs.

(1) The owner or operator of an affected facility shall install, maintain, and operate:
    (a) Stationary storage tank control devices according to 401 KAR 59:050 or 401 KAR 61:050.

    (b) A vapor balance system or an equivalent control approved by the

cabinet and the U.S. EPA for:

1. Filling of stationary storage tanks from transport vehicle tanks; and

2. Filling of transport vehicle tanks from stationary storage tanks.

(c) For loading into transport vehicle tanks either:

1. A submerged fill tube system; or

2. A bottom-fill system.

(2) The vapor balance system shall be equipped with fittings which are vapor tight and automatically close upon disconnection so as to prevent the release of organic material.

(3) The cross-sectional area of the vapor return hose shall be at least fifty (50) percent of the cross-sectional area of the liquid fill line and free of flow restrictions.

(4) Transport vehicle tank hatches shall be closed at all times during loading operations.

(5) There shall be no leaks from the pressure/vacuum relief valves and hatch covers of the stationary storage tanks or transport vehicle tanks during loading.

(6) The pressure relief valves on storage vessels and tank trucks or trailers shall be set to release at no less than 0.7 psig unless a lower setting is required by applicable fire codes.

(7) The owner or operator shall not load gasoline into any transport vehicle or receive gasoline from any transport vehicle which does not have proper fittings for connection of the vapor balance system, nor shall the owner or operator load or receive gasoline unless the vapor balance system is properly connected and in good working order. Except as provided in subsection (9) of this section the fittings on the transport vehicle tanks must be vapor tight and automatically close upon disconnection so as to prevent the release of organic material.

(8) The following shall apply to the loading of a transport vehicle tank by means of a submerged fill tube system:

(a) When inserted into the tank, the submerged fill tube system must form a vapor tight seal with the tank.

(b) Tank hatches are to be opened only for the minimum time necessary to insert or remove the submerged fill tube system.

(9) No owner or operator shall permit gasoline to be spilled, discarded in sewers, stored in open containers, or handled in any other manner that would result in evaporation.

(10) No owner or operator of a bulk gasoline plant in an urban county subject to this regulation shall allow loading or unloading of a tank truck unless the following provisions are met:

(a) The tank truck has a valid Kentucky pressure-vacuum test sticker as required by 401 KAR 63:031 attached and visible displayed;

(b) The vapor balance system and associated equipment are designed and operated to prevent gauge pressure in the tank truck from exceeding 450 mm water (eighteen (18) in. water) and prevent vacuum from exceeding 150 mm water (six (6) in. water);

(c) A pressure tap or any equivalent system as approved by the department is installed on the vapor balance system so that a liquid manometer, supplied by the department, can be connected by an inspector to the tap in order to determine compliance with paragraph (b) of this subsection. The pressure tap shall be installed by the owner or operator as close as possible to the connection with the delivery tank, and shall consist of a one-quarter (1/4) inch tubing connector which is compatible with the use of three-sixteenth (3/16) inch inside diameter plastic tubing;

(d) During loading operations there is no reading greater than or equal to 100 percent of the lower explosive limit (LEL, measured as propane) at a distance of 2.5 centimeters around the perimeter of a potential leak source as detected by a combustible gas detector using the test procedure referenced in Section 5.

Section 4. The owner or operator may elect to use an alternate control system if it can be demonstrated to the department's satisfaction that the alternative system will achieve equivalent control efficiency.

Section 5. Compliance. The test procedure as defined in Appendix B to "Control of Volatile Organic Compound Leaks from Gasoline Tank Trucks and Vapor Collection Systems" (OAQPS 1.2-119, U.S. EPA, Office of Air Quality Planning and Standards), which has been incorporated by reference in 401 KAR 50:015, or an equivalent procedure approved by the department, shall be used by the department to determine compliance with the standard prescribed in Section 3(10)(d) of this administrative regulation during inspections conducted pursuant to KRS 224.10-100(10).

Section 6. Compliance Table. (1) Affected facilities which were subject to this administrative regulation as in effect on August 24, 1982, shall have achieved final compliance.

(2) The owner or operator of an affected facility that becomes subject to this administrative regulation on or after the effective date of this administrative regulation shall be required to complete the following:

(a) Submit a final control plan for achieving compliance with this administrative regulation no later than eight (8) months after the affected facility becomes subject to this administrative regulation.

(b) Award the control system contract no later than nine (9) months after the date the affected facility becomes subject to this administrative regulation.

(c) Initiate on-site construction or installation of emission control equipment no later than ten (10) months after the date the affected facility becomes subject to this administrative regulation.

(d) On-site construction or installation of emission control equipment shall be completed no later than eleven (11) months after the date the affected facility becomes subject to this administrative regulation.

(e) Final compliance shall be achieved no later than twelve (12) months after the date affected facility becomes subject to this administrative regulation.

Section 7. Exemptions. An affected facility shall be exempt from this administrative regulation if the throughput is less than 4,000 gal/day. A rolling thirty (30) day average shall be allowed for determining applicability.

Effective date: September 28, 1994

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